

Idaho Roadless Rule Briefing Paper

Project Name: Black Skull Landscape Burn

Forest/District: Nez Perce – Clearwater; North Fork District

Date: 5/22/2019

Roadless Area: Mallard-Larkins

Management Theme: Mallard-Larkins - Backcountry Restoration, Primitive, Wild Land Recreation

Project Status: Small NEPA CE Preparing to Scope

Dates Presented to Commission: New Project - Not yet presented.

Key Contact: Theodore Peterson, Fuels AFMO, 208-476-8257

Project Area: The Black Skull Project is composed of 19 burn units spread out across 69,891 acres, all located within the North Fork drainage of the Clearwater River. Vegetation is comprised of decadent shrub fields, mixed conifer stands dominated by Douglas fir and grand fir in lower elevations, and lodgepole pine/sub alpine fir in higher elevations. The project is within the Mallard-Larkins Roadless Area and falls within 3 categories of roadless (Backcountry Restoration, Primitive, Wild Land Recreation).

Purpose and Need:

Vegetative Successional Stages

Purpose: Restore vegetative successional stages across the analysis area to a more natural condition, recognizing historical patch sizes and locations.

Need: The current distribution of vegetative successional stages can mostly be attributed to two events: (1) a series of catastrophic fires in this area during the period 1910-1934, which established a near-uniform starting point for natural plant succession across broad landscapes; and (2) wildfire prevention and control during the past six decades, which nearly eliminated the role of fire to fragment these uniform stands of vegetation. The interaction of these events has resulted in a reduction of the late seral stages, an unnatural abundance of the mid seral stages, and a lack of early seral vegetation relative to normal conditions (i.e., distributions which would have appeared naturally at these elevations in a wildfire-dominated landscape).

The Forest Plan goal to “provide habitat for viable populations of all indigenous wildlife species” (Clearwater Forest Plan, page II-2) emphasizes the need for habitat diversity. Since wildlife is a product of the interaction between topography, climate and vegetation, the unnatural distribution of successional stages across broad areas of the landscape has had important implications for many wildlife species that rely on one or more of the successional stages for their habitat. For example, elk, moose, white-tailed deer, snowshoe hares, and rodents rely on early seral grasses, forbs, and shrubs - vegetation that has become increasingly scarce. Some of these species, such as moose and elk, also find cover in old forest habitats, which are marginally distributed and key to such species as pileated and black-backed woodpeckers, pine marten, fisher, and

flamulated owls. Finally, the abundance of prey species, found mostly in the early successional stage, has an effect on the predators (lynx, gray wolf, and wolverine) that feed on such species.

In addition, a balanced distribution of successional stages is more resilient to disturbances than the present distribution. The lack of early seral stages and bulge of mid seral stages is creating the potential for large scale, catastrophic wildfires more intense than typical wildfires. These events would have major detrimental impacts to soils and aquatic systems, which would be contrary to the Forest Plan goal to “insure that soil productivity is maintained and no irreversible damage occurs to soil and water resources...” (Clearwater Forest Plan, page II-3).

There are numerous other resource goals and objectives in the Forest Plan (refer to pages II-1 through II-8) that support restoring a natural distribution of successional stages, which is essential in meeting these same goals and objectives.

Natural Processes

Purpose: Actively restore fire to maintain healthy ecosystems and reduce the risk of widespread catastrophic wildfire.

Need: Historically, fire was the major agent of change within the Upper and Middle North Fork watersheds. Periodic wildland fire maintained vegetative structure and composition, regulated understory vegetative growth, and allowed seral, fire dependent species to dominate the landscape. These statements are directly linked to the Forest Plan goal of “...recognizing the role of fire in ecological processes” (Clearwater Forest Plan, page II-4).

Fire exclusion, due to 60 years of aggressive fire suppression and very limited use of prescribed fire, has caused a shift from open stands of Douglas-fir, western white pine, and ponderosa pine to dense stands of non-fire adapted tree species (grand fir, western red cedar, and subalpine fir). This is most evident on the south facing break lands, which may have missed several fire disturbances. This increases the risk of a stand replacing fire event, especially due to increasingly fuel accumulations from western white pine killed by blister rust (Barrett. 2000).

High fuel accumulations (50-200 tons/acre) have been documented within the Collins Creek drainage and in the Mallard Larkins Roadless area. Fires that occur in areas with heavy fuel accumulations and ladder fuels tend to burn more severely, causing undesirable effects to ecosystem components such as soils. This is due to the fact that larger fuels tend to burn for longer durations, thus exposing the soils to much higher temperatures for longer periods of time. By gradually reintroducing fire into these stands, fuel accumulations can slowly be reduced. This will help maintain healthy ecosystems as well as reduce the risk of severe wildland fire events. Actively restoring fire is essential in meeting Forest Plan standards for Management Areas C4 and C8S, which are to “use prescribed fires from planned and unplanned ignitions as needed to achieve Forest Plan direction” and treat fuels “to prepare sites for reforestation, to break up continuous fuel beds, to remove barriers to big-game movement, and to improve forage” (Clearwater Forest Plan, pages III-49 and III-56).

Proposed Action:

The Black Skull project would reintroduce fire into this fire adapted ecosystem to begin reversing the trends caused from past fire suppression and reduce the risk of large, severe wildfires.

Proposed	Proposed Unit	Proposed Ignition Areas
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Under this proposal, prescribed fire will be applied to 19 units with a total of 22,312 acres identified as ignition areas within the 69,891 acre project area. (32% of the project area) The purpose of these treatments will be to encourage early seral vegetative growth, reduce hazardous fuel buildup associated with the insect and disease outbreaks, minimize fuel loadings, reduce fuel continuity and reduce the potential for fire to spread onto the Idaho Panhandle National Forest.

Vegetation characteristics, elevation and topographic differences have been used to determine burn area and extent. Burn units were designed to avoid bare rock, designated old growth, soils susceptible to erosion, and riparian areas to the extent possible. However, some of these features occur as inclusions within burn areas. It is not the intent to ignite within these inclusions, but it is likely that fire will creep into them in places but based on what we have observed it is highly unlikely that total fuel consumption will even come close to being reached.

During prescribed fire ignition we use our knowledge of the area, aspect, and current fuel conditions (i.e. moistures, loadings, and continuity) to determine the most appropriate places to start our ignitions. Traditionally we will ignite the ridge tops on the favorable aspects and allow the prescribed fire to back down the ridge lines and into drainages. We do not anticipate more than 40 to 60% of any unit to burn.

It is important to note that our goal is to mimic natural fire, thus creating a mosaic pattern on the landscape. We do this by introducing fire with low to moderate fire intensities into the burn units. If we experience intensities higher than we desire, we stop ignitions immediately.

None of the units will be entirely ignited and none of the units are expected to burn in their entirety. For example, ignitions are not targeting areas of young forest or older forest, nor are these areas expected to burn to any great extent. **Error! Reference source not found.** shows the treatment units and the approximate area that is expected to burn within each unit. Table 2 refers to the acres associated with each proposed ignition area. While not every acre will burn, the entire unit will have benefitted from the fire effects as a result of increased vegetative diversity.

The proposal would be accomplished by Forest Service personnel using a series of spring/summer/fall burns (using hand and/or aerial ignition) over a 5-10 year period. Fire would be introduced under predetermined weather conditions to allow mixed severity fire to treat large-scale areas within the project area. Fire would be applied to pre-identified areas; once this fire is established, it would be allowed to move and spread until a significant weather event occurs. It is expected that fire will remain active and continue to burn within the project area for up to a month or more. The creation of openings consistent with what has resulted from past resource benefit fires previously known as Wildland Fire Use (WFO) fires on the North Fork district is anticipated and desired.

Burn Unit	Acres	in Acres
1	3349	787
2	2399	910
3	1116	528
4	2223	379
5	3534	1636
6	3956	2098
7	3941	1247
8	2993	1149
9	3731	244
10	2704	1130
11	3927	465
12	4548	987
13	4423	2235
14	6571	2290
15	5994	1480
16	5153	1216
17	3448	1473
18	2972	1062
19	2909	996
Total	69891	22312

Return entries into the units may be necessary to achieve desired conditions and will be evaluated by district personnel.

The mixed severity burns are expected to consume ground fuels and ladder fuels. Tree mortality within treated areas is expected to range between 30-50%, resulting in a mosaic of burned and unburned areas. The natural reestablishment of tree seedlings is expected in most treated areas.

Ignition will take place on the upper slopes and ridgetops. Backing fire with uphill runs will produce the low to moderate intensity fire that is necessary to reduce surface and ladder fuels, as well as rejuvenate browse. Low to moderate intensity fire spread over large expanses should produce the desired patchy distributions of vegetative successional stages. Future fires occurring within the patchy landscape should exhibit intensities within the historic norm. This will further increase opportunities for the Nez Perce-Clearwater National Forest to manage naturally occurring wildland fires under the resource benefit fire response.

It is likely that some of the burns will move outside the units. This is considered acceptable as long as the fire generally remains of mixed severity. If a more intense fire occurs, suppression actions could be taken to reduce fire intensity, discourage its progress or influence its direction.

In the event of an unplanned/natural ignition, North Fork Fire Management and District Leadership will evaluate location and conditions to determine if the fire will produce acceptable effects and achieve objectives of the project. If it is determined that this is achievable the natural ignition could be managed within the project area.

The project area is accessed from Forest Road 247 from Pierce, Idaho via Hwy 11 through Headquarters, Idaho.

Work could begin as soon as the area is accessible after snow melt in late spring of 2020 and would continue as weather and resources allow in spring and fall until all units are complete. Burn windows are extremely limited in this area because of weather and other fire activity, so it may take several years to complete all the burn units.

Post implementation monitoring will be done as identified in the burn plan. Flammulated owl monitoring will be conducted on a 5-year basis to monitor use of the area long-term.

Scoping comments/objections: Have not scoped yet.

Timeline: Small NEPA scoping will be internal by normal distribution methods in May - July 2019. If no issues that would cause there to be a significant effect are identified, the project would move forward. Depending on the Heritage report, it can be complete, or forwarded to the State Historic Preservation Office for review, typically 30 days (2 weeks to 2 months is possible). When this process is complete, the Ranger could sign the decision, which could range from June to August 2019, depending on Heritage resource issues.

Summary

1. **Road Construction/Reconstruction:** No road construction or reconstruction will occur on this project.
2. **Timber Cutting, Sale, or Removal:** No
3. **Discretionary Minerals:** No minerals will be removed as a component of this project. No active mining claims exist within the project area.
4. **Modification or Correction:** The activity does not require a modification or correction.

Responsible Official: Andrew Skowland, North Fork District Ranger, Nez Perce – Clearwater National Forest